

REMARKS

Claims 14-44 are pending in this application. Applicants appreciate the courtesies extended by the Examiner Nguyen during a telephonic interview on March 26, 2002 with Applicants' representatives. As discussed with the Examiner, this Response cancels the apparatus claims and introduces claims similar in scope to the ones in abandoned parent application no. 09/133,712, filed August 13, 1998.

In addition, many features of the apparatus claims previously pending in this application have been introduced in co-pending application no. 09/372,881, which is related to this case through a common parent application bearing application serial no. 09/133,712. Thus, only method claims are included in this application, while the apparatus claims are in related application serial no. 09/372,881.

These changes were first proposed during an in-person interview with the Examiner of parent application no. 09/133,712 (Examiner Bali). At that time, Examiner Bali indicated a willingness to allow the claimed subject matter with the proposed revisions.

SUPPORT FOR NEW CLAIMS

New independent claims 14, 23, 29, and 34 are directed toward a method of automatically inspecting a surface treatment of a golf ball, *i.e.*, coatings, indicia, or logo prints, to determined conformance of the surface treatment to a predetermined standard or reference. Applicants respectfully submit that new claims 14-40 are fully supported by the Specification as follows:

| <u>Claim(s)</u> | <u>Specification</u> |
|--------------------------------|---------------------------------------------|
| 14, 23 | Page 6, lines 18-22 |
| 15, 24 | Page 7, lines 21-23 |
| 16-17, 25 | Page 11, lines 21-24 |
| 18, 40 | Page 23, lines 7-20 |
| 19-21, 26-28, 30-31, 33, 35-37 | Page 29, lines 3-32 <i>see annex</i> |
| 22, 38 | Page 21, lines 20-30 |
| 29, 34 | Page 19, line 28 to Page 20, line 23 |
| 32, 39 | Page 7, lines 21-23 Page 11, lines 21-24 |

As no new matter has been added by the amendments herein, Applicants respectfully request entry of these amendments at this time.

THE REJECTION UNDER 35 U.S.C. § 112

Claims 4-5 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. In light of the amendments herein, Applicants respectfully submit that this rejection is moot.

THE REJECTIONS UNDER 35 U.S.C. § 103

Claims 1 and 8-13 were rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,031,933 to Kumagai in view of U.S. Patent No. 5,286, 532 to Yoshikawa *et al.* In addition claims 2-4 were rejected under § 103(a) as being obvious over Kumagai in view of Yoshikawa and further in view of U.S. Patent No. 5,732,147 to Tao *et al.* Finally, claims 5-7 were rejected under § 103(a) as being obvious over Kumagai in view of Yoshikawa and further in view of Japanese Patent No. 08 309 262 to Yamada.

In light of the cancellation of claims 1-13, Applicants respectfully submit that the rejections based upon various combinations of Kumagai, Yoshikawa, Tao, and Yamada are moot for this application. This combination of references as they pertain to apparatus claims, however, have been addressed in related application serial no. 09/372,881, which is being examined by the same Examiner as the present application. Although the rejections are not directed to the currently pending method claims, Applicants respectfully submit that new independent claims 14, 23, 29, and 34 are also patentable over the cited references for the following reasons.

Combinations of Kumagai and Yoshikawa

The present invention is directed to a method of automatically inspecting a surface treatment, coating, indicia, or logo on a game ball by passing the game ball through an automated inspection system to determine whether the ball surface meets predetermined standards. In contrast, Kumagai does not disclose or suggest applying a surface treatment to a game ball or determining conformance to a predetermined standard.

In addition, an obviousness rejection requires (1) that the Examiner considers the totality of a reference and (2) that any proposed modification cannot render the reference unsatisfactory for its intended purpose. *See, e.g.*, MPEP §§ 2141.02 and 2143.01. Kumagai expressly *teaches away* from the present invention through instructions to exclude or ignore any portions of the

golf ball having characters, trademarks, and numbers on the surface of the golf ball as these marks prevent the identification of the defects. *See* Column 10, lines 15-26. As such, a rejection based upon Kumagai proposes a modification to the disclosure that would render the reference inoperable for its intended purpose.

Furthermore, Kumagai discloses a method and apparatus for detecting “defects,” such as flaws, weld marks, depressions left at the gate, and foreign matter inclusions on the golf ball surface, wherein the defect, or indentation mark, appears as an abrupt change, or variation, in brightness on the two-dimensional image. *See* Column 2, lines 49-52; Column 9, lines 7-9. Any variations in brightness are then compared to baseline variation data associated with dimples measured at the same time, on the same ball to determine whether the variation is significant enough to call it a defect. *See* Column 9, lines 50-53. Kumagai does not even suggest using predetermined standards, a pre-recorded image, or a reference image, as presently recited.) <

In addition, while Yoshikawa generally discloses a pressure plasma treatment for golf balls intended to improve adhesion between a golf ball and a finish coating (Abstract),

× Yoshikawa does not cure the deficiencies of Kumagai. For example, no combination of the Kumagai method for detecting indentations and the Yoshikawa plasma treatment method would result in the ability to compare an applied surface treatment to a predetermined standard of a surface treatment, especially in light of the Kumagai teachings to exclude or ignore any portions of the golf ball with surface treatment. Thus, one of ordinary skill in the art would have had no reasonable expectation of success of arriving at the presently claimed invention by combining a reference that teaches away from the presently claimed invention with another reference that lacks all the required elements.

Combinations of Kumagai, Yoshikawa, and Tao

Tao also does not cure the deficiencies of Kumagai and Yoshikawa. Tao generally discloses an image processing system using cameras and image processing techniques to identify undesirable objects on a conveyor line. *See* Abstract. The method disclosed by Tao is similar to Kumagai in that it measures the differences in reflectance levels for each apple to identify physical defects, *i.e.*, rots, decay, limb rubs, scars, cavities, holes, bruises, black spots, and damage from insects. *See* Column 9, lines 24-25 and 34-36; Column 10, lines 15-20. The variation in reflectance levels is measured simultaneously against other parts of the same apple. *See* Column 10, lines 36-40. Tao does not disclose or suggest application of a surface treatment, or determination of conformance of a surface treatment with a predetermined standard or reference image, as presently claimed. Thus, one of ordinary skill

in the art would have lacked the motivation to use any combination of Kumagai, Yoshikawa, or Tao to arrive at the presently claimed invention.

Combinations of Kumagai, Yoshikawa, and Yamada

Yamada also does not cure the deficiencies of Kumagai or Yoshikawa. Yamada generally discloses a method for measuring the thicknesses of a clear coating film on a golf ball by obtaining the bright and dark images of the coating film. *See Abstract.* Yamada does not disclose or suggest, however, application of a surface treatment, or determination of conformance of a surface treatment with a predetermined standard or reference image, as presently claimed. Thus, no combination of Kumagai, Yoshikawa, or Yamada would result in the presently claimed invention.

CONCLUSION

For the above reasons, Applicants respectfully submit that no combination of Kumagai, Yoshikawa, Tao, or Yamada results in the presently claimed invention.

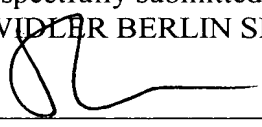
All claims are believed to be in condition for allowance. If the Examiner believes that the present amendments still do not resolve all of the issues regarding patentability of the pending claims, Applicants invite the Examiner to contact the undersigned attorneys to discuss any remaining issues.

A Petition for Extension of Time is submitted herewith, with provision for the required fee, to extend the time for response one month to and including April 26, 2002. A Fee Sheet Transmittal is also submitted herewith to pay for the additional claims added with this Response.

No other fees are believed to be due at this time. Should any fee be required, however, please charge such fee to Swidler Berlin Shereff Friedman, LLP Deposit Account No. 195127, Order No. 20002.0093.

Respectfully submitted,
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By:  _____

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APPENDIX A. MARKED UP VERSION OF AMENDED PARAGRAPH

Please replace the paragraph at page 6, lines 14-32 as follows:

The automated inspection system of the present invention is comprised of an imaging [imagining] system which is adapted to account for unique surface properties, such as contours, of a golf ball to analyze various characteristics of a surface treatment (e.g., contouring or coloring) of the golf ball. In a preferred embodiment, the automated inspection system of the present invention is used to detect and analyze a surface treatment, such as the application of a coating or paint to the surface of a golf ball, affecting the cosmetic or aesthetic appearance of the golf ball. For example, the distribution (e.g., uniformity and symmetry), adequacy (e.g., degree, thickness, or quantity), and accuracy (e.g., the specific form of a printed symbol) with which a surface treatment has been applied to the surface of a golf ball may be viewed by an imaging system. The imaging system transmits a clear, undistorted image of the ball being inspected to an analyzer, which analyzes various characteristics of the substance [which] that has been applied to the golf ball.